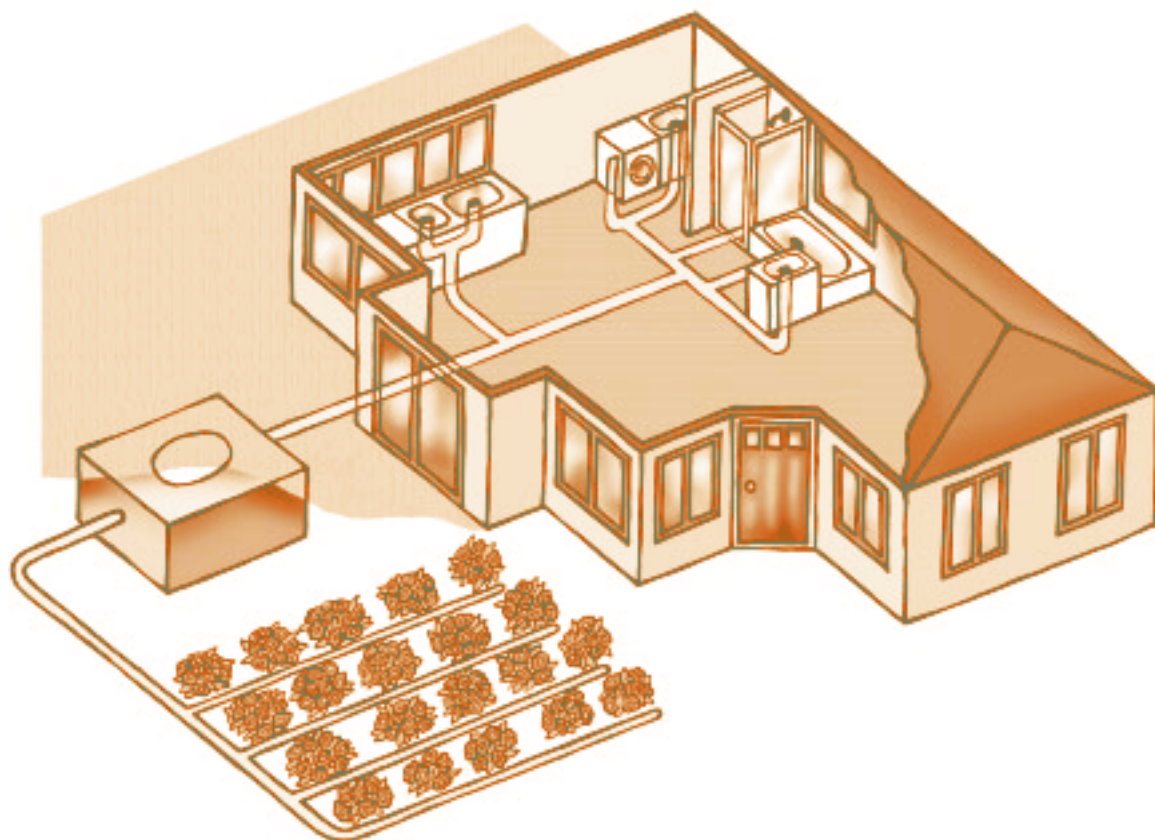


Our water future – it's up to all of us

Part of a joint Government agency initiative to create a sustainable water future for Western Australia.



Using greywater

Greywater is household wastewater that has not come into contact with toilet waste. It can be used to water the garden.



Water and Rivers
Commission



Department of Health
Government of Western Australia



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WATER REGULATION



What is greywater?

Greywater is wastewater that comes from the bath, shower, bathroom wash basins, clothes washing machine, laundry trough and kitchen sink.

Its characteristics will vary according to the number of household occupants, their age, lifestyle, health and water use patterns.

Greywater will contain some faecal contamination, bacteria, parasites and viruses washed from the body and clothes. Pathogenic micro-organisms are a normal part of the gut. This means that all forms of greywater are capable of transmitting disease. Greywater needs to be properly managed to minimise health risk and degradation of the environment.

What is in greywater?

Bathroom greywater can be contaminated with hair, soaps, shampoos, hair dyes, toothpaste, lint, body fats, oils and cleaning products. It also has some faecal contamination (and the associated bacteria and viruses) that come through body washing.

Laundry greywater can have faecal contamination with associated bacteria and viruses, lint, oils, chemicals (such as sodium and boron), soaps, nutrients and other compounds.

Kitchen greywater will be contaminated with food particles, cooking oils, grease, detergents, and other cleaning products such as dishwashing powders.

Kitchen greywater may not be well suited for reuse in all types of greywater systems. It should not be reused via manual bucketing.

Unless properly managed, greywater can give rise to health risks and degradation of the environment.

How can I reuse greywater?

One option for greywater reuse is bucketing. The advantage of bucketing is that it doesn't require modification to the plumbing of your home, or installation of a greywater treatment and irrigation system. The greywater can be collected directly from the bathroom and laundry, and applied to garden or lawn areas.

To minimise potential health risks and environmental damage, the following guidelines should be adhered to:

- ❖ Apply greywater in several locations, to prevent pooling.
- ❖ Only bucket greywater to areas that are inaccessible to children and pets.
- ❖ Don't use greywater from the washing of nappies or soiled clothing.
- ❖ Don't use greywater when a household resident has an infectious disease.
- ❖ Don't put greywater on edible plants or fruit.
- ❖ Don't store greywater – it may turn septic.
- ❖ Don't over water: Too much greywater can clog the soil, causing pooling and the development of grey/green slime areas. This slime, caused by the presence of soaps, shampoos and grease, can cause odours, attract insects and damage the environment.

Another option for greywater reuse is to install a greywater reuse system.

Installing a greywater reuse system

Greywater reuse systems range from those that coarsely screen oils, greases and solids before irrigation, via small trenches, to more expensive systems that treat and disinfect the greywater via spray or drip systems.

The Executive Director, Public Health, must approve all greywater systems before use in Western Australia. For a list of approved systems, please contact the Wastewater Management Section of the Department of Health on (08) 9388 4932.

All greywater reuse systems (this does not include bucketing) must irrigate greywater below ground, unless it is treated and disinfected to a secondary effluent standard. Irrigation of greywater below ground reduces the scope for human contact, and subsequent risk to public health.

To discuss your system and arrange approval, contact the Environmental Health Officer at your Local Government office.

Operation and maintenance

Once a greywater system is installed, it becomes the householder's responsibility to ensure it is operated and maintained according to the manufacturer's instructions. Some greywater systems may require weekly cleaning or replacement of filters, periodic desludging of treatment tanks, the manual diversion of greywater back to the sewer in winter, flushing of the irrigation lines, and occasional replacement of pumps.

Other issues to consider

- ❖ Only use household products with a low phosphorus content. Some native plants are sensitive to additional phosphorus, particularly the Proteaceae family.
- ❖ Greywater tends to be slightly alkaline (pH 6.5-9.0). Shade and acid loving plants, including azaleas, camellias and gardenias, will not thrive on greywater.
- ❖ High levels of sodium in washing powders can produce saline greywater. Products with potassium salts or liquid concentrates are better.
- ❖ Some detergents and powder cleansers contain boron. In high concentrations, this can be toxic to plants and animals.
- ❖ Greywater must be contained, and not run into neighbouring properties.
- ❖ Avoid the use of bleaches or softeners, and detergents that contain boron, borax, chlorine, bleach, sodium perborate and sodium tryptochlorite (salts).

Where can I find out more?

The 'Draft Guidelines for the Reuse of Greywater in Western Australia' are available from the Department of Health website at <http://www.health.wa.gov.au>.

For further information, contact the Environmental Health Officer at your Local Government office or the Wastewater Management Section at the Department of Health on: (08) 9388 4932.